

Please replace the paragraph at page 1, line 16 to page 2, line 3 with the following:

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Known typical confocal microscopes adapted to operate at high speed include those comprising a Nipkow's disk having a large number of pin holes arranged helically at intervals about ten times as large as their diameter. A confocal microscope comprising a Nipkow's disk is required to eliminate cross talk arising from adjacently located pin holes, and hence relatively large intervals have to be used in order to separate the pin holes from each other. The large intervals reduce the efficiency of utilizing the beam of light from the light source and, as a matter of fact, only 1% of the beam coming from the light source is utilized for the operation of the microscope. This means that the obtained image of the specimen is very dark.

Please replace the paragraph at page 18, lines 2-19 with the following:

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FIG. 5B is an enlarged schematic partial plan view of the rotary disk of FIG. 5A, illustrating the random pin hole pattern section 36b of the disk in greater detail. As shown in FIG. 5B, the section 36b has a plurality of pin holes 36a that allow light to pass therethrough and a shield mask 36f, which occupies the area other than the pin holes 36a and is

formed typically by depositing Cr by evaporation so as not to allow any light to pass therethrough. The half-diameter r of the pin holes 36a is normally so selected as to be expressed by formula (1) below:

$$r = bM\lambda/NA \quad \dots (1),$$

where M represents the magnification of the sample image projected on the disk, NA is the aperture ratio, λ is the wavelength of light and b is a constant which is about 0.35. Therefore, if the wavelength λ is equal to 550 nm, the magnification M is 100 and $NA = 0.9$, the half-diameter r of the pin holes will be 21.4 μm .

Please replace the paragraph at page 24, line 24 to page 25, line 2 with the following:

Additionally, since the transmissivity of the linear pattern section 62a is $\frac{1}{2}$ and the area of the aperture section 62b is $\frac{1}{4}$ of that of the linear pattern section 62a, the confocal image can be obtained by using a simple subtraction without involving a multiplication using a constant.

Please replace the paragraph at page 28, lines 13-23 with the following:

Meanwhile, the ratio of the brightness of the composite image to that of the conventional image is determined by the ratio of the area of the linear pattern section 64a and that of the aperture section 64b. The non-confocal component of a composite image can be eliminated only by equalizing the brightness of the conventional image and that of the non-confocal component of the composite image. If they show different levels of brightness, the non-confocal image component can be left in the outcome of the subtraction or the confocal image can be subtracted and missed.

Please replace the paragraph at page 29, line 19 to page 30, line 2 with the following:

Firstly, in Step S1, coefficient α to be used for subtracting the conventional image (non-confocal image) data obtained by means of the aperture section 64b from the composite image data obtained by means of the linear pattern section 64a is input. While the coefficient α may vary depending on the transmissivity of the linear pattern section 64a, the ratio of the area of the linear pattern section 64a and the aperture section 64b, the magnification

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of the objective lens and the value of NA, it is typically between 0.5 and 1.5.

Please replace the paragraph at page 34, lines 8-18 with the following:

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The shield plates 70₁ and 70₂ are fitted to the rotary disk 70 by means of the holes arranged at the top thereof and shield plate holding members 72a, 72b. The shield plates 70₁ and 70₂ are provided at the center thereof with a through hole for allowing the rotary shaft to pass therethrough. Additionally, the shield plate 70₁ is provided at the outer periphery thereof with screw threads, whereas the shield plate 70₂ is provided at the inner periphery thereof with screw threads. Thus, the shield plates 70₁ and 70₂ can be rigidly held in position by tightening a screw (not shown).

Please replace the paragraph at page 34, line 19 to page 35, line 1 with the following:

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The area of the light blocking sections 70d, 70e can be modified by loosening the screw rigidly holding the shield plate holding members 72a, 72b and moving the shield plates 70₁ and 70₂ around the rotary shaft to modify the area of the aperture section 70c and that of the random pin hole

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pattern section 70b. Then, the shield plate holding members 72a, 72b are made to be rigidly held in position by tightening the screw so that the shield plates 70₁ and 70₂ may become immobile once again.

IN THE CLAIMS:

Please cancel claims 1-7, without prejudice.

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